CLAIMS

We Claim: A method for the detection of a demyelinating disease comprising: 1. providing: i) a sample from a human suspected of having a a) demyelinating disease, and ii) iron binding protein; reacting said sample with said iron binding protein; and b) measuring the extent of binding of said iron binding protein to said c) sample. 10 The method of Claim 1, wherein said sample is brain tissue. The method of Claim 2, wherein said brain tissue is collected via surgical biopsy. The method of Claim 1, wherein said iron binding protein is ferritin. 4. The method of Claim 4, wherein said ferritin is native. 5. The method of Claim 4, wherein said ferritin is recombinant. 6. The method of Claim 4, wherein said ferritin is linked to a detectable marker. 7. The method of Claim 7, wherein said marker is selected from the group 8. consisting of radioisotope and florescent dye. The method of Claim 8, wherein said radioisotope is 125 I. 9. The method of Claim 1, wherein said measuring if performed with a technique 10. 29

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selected from the group of autoradiography and immunofluorescence.

- 11. A method for the detection of a demyelinating disease comprising:
 - a) providing:
 - i) a fluid sample from a human suspected of having a demyelinating disease;
 - b) reacting said fluid sample with human ferritin binding protein; and
- c) detecting the binding of antibodies within said fluid sample to said ferritin binding protein.
- 12. The method of Claim 11, wherein said fluid sample is selected from the group consisting of whole blood, blood serum, blood plasma, cerebral spinal fluid, lymph, and urine.
- 13. The method of Claim 11, wherein said ferritin binding protein is immobilized prior to said reacting of step (b).
- 14. The method of Claim 13, wherein said ferritin binding protein is immobilized on a substrate selected from the group consisting of glass, agarose, and plastic.
- 15. The method of Claim 11, wherein said substrate comprising ferritin binding protein comprises ferritin binding protein operably linked with a resin.
- 16. A isolated ferritin binding protein having an observed molecular weight of approximately 55 kDa.

FATER TENSOR

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